Protecting
Our Critical Resources

Water and Energy

Perhaps the largest negative environmental impact of treating and distributing water is energy use. GCWW has implemented an energy management plan to provide high quality water with as small an environmental footprint as feasible. This will ensure our water resources are available for generations to come.

Since the 1930s, GCWW has been recovering energy through the use of a generator and a water wheel. Today, this process produces approximately two million KWH per year — enough energy to power 200 homes.

Less Power — Same Quality

GCWW is continually striving to reduce power consumption without affecting the service and product our customers receive at the tap. Just a few ways we do this:

Transformers — Our largest treatment facility, the Richard Miller Treatment Plant, exhibits a much higher electrical usage in the summer than in the winter. We shut off two of the transformers in winter and one in summer, resulting in a significant electricity reduction.

Night Pumping — GCWW switches our usage to low electrical demand periods to receive a lower rate. This also makes power available for other Duke customers, reducing the need for Duke to use less efficient "peaking" power plants.

Efficient Lighting — GCWW has saved 165,000 KWH annually by switching the incandescent bulbs from incandescent to fluorescent or LED bulbs.

Pump Efficiency — Annual tests are conducted to make sure our pumps are moving water as efficiently as possible.

Fixing Leaks — Any water loss due to a leak at treatment plants or in the distribution system results in wasted water and more pumping. Our leak detection crews use a variety of techniques including geothermal imaging to find and repair leaks on large transmission mains.

It is estimated that the GCWW energy management plan will result in a reduction of power consumption of approximately 3.3 million KWH annually. This is enough energy to power 330 homes and reduce CO2 emissions by over 2,900 tons/yr.

The Future

We aren't stopping there. GCWW will soon implement ultraviolet (UV) disinfection treatment technology to disinfect water without adding any chemicals. With the implementation of this project, GCWW will be the first water utility in the United States to use our current treatment technology followed by UV. To reduce GCWW's carbon footprint, a component of the UV project will be the installation of solar panels atop the new facility and a second installation on existing Water Works facilities. These projects will help protect public health with advanced water treatment technology and protect the environment by using solar rather than carbon-based energy. As designed, this project will represent one of the largest solar-generated electric supply installations in Ohio.

Future green initiatives include the installation of solar panels on other existing and future GCWW facilities and possibly geothermal heating and cooling at other facilities. GCWW is also exploring the installation a vegetated roof for Eden Park pump station to reduce runoff and provide thermal insulation during the summer and winter months.

We are excited about our current initiatives and welcome the challenge to develop more ways to help preserve our planet.

Happy Earth Day from Greater Cincinnati Water Works.

GREATER CINCINNATI WATER WORKS

A Service of The City of Cincinnati

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